

# DITHERING MODULE WITH DIPLEXER

## ABSTRACT OF THE DISCLOSURE

**[0049]** Dithering techniques that efficiently combine a non-correlated noise signal with a desired signal are disclosed. Insertion loss in the noise path is relatively low due to combining means employed. In one embodiment, a self-contained dithering module includes a diplexer (or equivalent device) that provides an insertion loss associated with the noise signal of 3 dB or less. The signal+noise output can be used in noise-based application such as a data conversion process.